



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/721,759	11/27/2000	Amir Kantschuk	P-3708-US	3882
27130	7590	03/26/2004		
EITAN, PEARL, LATZER & COHEN ZEDEK LLP 10 ROCKEFELLER PLAZA, SUITE 1001 NEW YORK, NY 10020			EXAMINER LUGO, DAVID B	
			ART UNIT 2634	PAPER NUMBER 7
DATE MAILED: 03/26/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/721,759

Applicant(s)

KANTSCHUK ET AL.

Examiner

David B. Lugo

Art Unit

2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 November 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 31,34 and 35 is/are rejected.
- 7) ☒ Claim(s) 1-30,32,33 and 36-40 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 November 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5 - 8/8/02.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to because in Figure 1, boxes 10, 12, 20 and 22 should have corresponding text labels. In addition, in block 220 of Fig. 2, "n" should be replaced with "m" to correspond with page 11 of the specification. Corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: 400-422. Corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

3. The disclosure is objected to because of the following informalities:

Page 11, U.S. Patent Application No. 09/643,821 should be replaced with corresponding U.S. Patent No. 6,687,288.

Appropriate correction is required.

Claim Objections

4. Claims 1-40 are objected to because of the following informalities:
 - a. Claim 1, lines 8 and 15, "NEXT canceller filter" should be --NEXT cancellation filter--.

Art Unit: 2634

- b. Claim 1, lines 9 and 16, “the NEXT transfer function” should be --a NEXT transfer function--.
- c. Claim 1, line 16, “said target modem” should be --said second modem pool target modem-- to distinguish from the target modem in the first modem pool.
- d. Claim 4, line 2, it is suggested that “said modems” be replaced with --said at least one of the modems in said first or second modem pool, respectively,--.
- e. Claim 4, there is a lack of antecedent basis for “said communications channel” in line 3. It is suggested that --via a communications channel-- be inserted after “second modem pool” in claim 1, line 2, to overcome this objection.
- f. Claim 5, line 2, it is suggested that “said modems” be replaced with --said at least one of the modems in said first or second modem pool, respectively,--.
- g. Claim 10, line 2, it is suggested that “said modems” be replaced with --said at least one of the modems in said first and second modem pools--.
- h. Claim 12, line 2, it is suggested that --location-- be inserted after “remote terminal” to indicate that the modem pool is not just located at a single remote terminal.
- i. Claim 13, line 2, --location-- should be inserted after “remote terminal”.
- j. Claim 14, line 7, “NEXT canceller filter” should be --NEXT cancellation filter--.
- k. Claim 14, line 8, “the NEXT transfer function” should be --a NEXT transfer function--.
- l. Claim 15, line 2, it is suggested that --at least one of the-- be inserted before modems.

Art Unit: 2634

- m. Claim 16, line 2, it is suggested that --at least one of the-- be inserted before modems.
- n. Claim 17, line 1, “steps comprise” should be --step comprises--.
- o. Claim 17, line 2, “transfer functions” should be --transfer function--.
- p. Claim 18, line 2, “location” should be inserted after --remote terminal--.
- q. Claim 19, line 2, --via a communications channel-- should be inserted after “second modem pool” to provide proper antecedent basis for “said communications channel” recited in line 3 of claim 20.
- r. Claim 19, lines 9 and 17, “NEXT canceller filter” should be --NEXT cancellation filter--.
- s. Claim 19, lines 10 and 18, “the NEXT transfer function” should be --a NEXT transfer function--.
- t. Claim 19, line 18, “said target modem” should be --said second modem pool target modem--.
- u. Claim 20, line 2, “said modems” should be replaced with --said at least one other modem in said first or second modem pool, respectively--.
- v. Claim 21, line 2, “said modems” should be replaced with --said at least one other modem in said first or second modem pool, respectively--.
- w. Claim 23, line 2, “said modems” should be replaced with --said at least one other modem in said first and second modem pools--.
- x. Claim 25, line 2, “location” should be inserted after --remote terminal--.
- y. Claim 26, line 2, “location” should be inserted after --terminal--.

Art Unit: 2634

- z. Claim 27, line 8, "NEXT canceller filter" should be --NEXT cancellation filter--.
- aa. Claim 27, line 9, "the NEXT transfer function" should be --a NEXT transfer function--.
- bb. Claim 28, line 2, "said modems" should be --said at least one other modem--.
- cc. Claim 29, line 1, "steps comprise" should be --step comprises--.
- dd. Claim 29, line 2, "transfer functions" should be --transfer function--.
- ee. Claim 30, line 1, --location-- should be inserted after "remote terminal".
- ff. Claim 31, line 5, "the NEXT transfer function" should be --a NEXT transfer function--.
- gg. Claim 31, line 6, one occurrence of "for" should be deleted.
- hh. Claim 32, line 2, "signals occupy" should be --signal occupies--.
- ii. Claim 34, line 2, "transfer functions" should be --transfer function--.
- jj. Claim 35, line 2, "location" should be inserted after --remote terminal--.
- kk. Claim 36, line 5, "the NEXT transfer function" should be --a NEXT transfer function--.
- ll. Claim 36, line 6, one occurrence of "for" should be deleted.
- mm. Claim 37, line 2, "signals occupy" should be --signal occupies--.
- nn. Claim 39, line 2, "transfer functions" should be --transfer function--.
- oo. Claim 40, line 2, "location" should be inserted after --remote terminal--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 31, 34 and 35 are rejected under 35 U.S.C. 102(e) as being anticipated by Agazzi et al. U.S. Patent 6,201,796.

7. Regarding claim 31, Agazzi et al. disclose a communications system in Fig. 3 comprising a communications channel, and a modem pool (A-D) for communicating via said communications channel where during a startup protocol (Fig. 13), a master, considered a target modem, trains its near-end noise reduction system by converging the adaptive filter contained within its NEXT cancellation system during a first phase 114 where no information is transmitted to the modem pool (col. 12, lines 7-21).

8. Regarding claim 34, the convergence of the adaptive filter is considered to be performed in either the time domain or the frequency domain.

9. Regarding claim 35, the modem pool is considered to be located at either a central office or a remote terminal location.

Allowable Subject Matter

10. Claims 1-30 and 36-40 would be allowable if rewritten or amended to overcome the objections set forth in this Office action.

11. Claims 32 and 33 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, and rewritten or amended to overcome the objections set forth in this Office action.

12. The following is a statement of reasons for the indication of allowable subject matter:

Agazzi et al. disclose converging a NEXT cancellation filter for a target modem, but does not teach deactivating a modem in a modem pool at the other end of the communications channel, preventing communications via said communication channel, or placing the target modem in receive only mode, as recited in claims 1, 14, 19, 27 and 36.

Cioffi U.S. Patent 5,887,032 teach a method for crosstalk cancellation where a first signal is transmitted on a first line while simultaneously receiving a second signal on a second line for estimating a crosstalk coefficient for the first line with respect to the second line, and hence does not teach deactivating a modem in a modem pool at the other end of the communications channel, preventing communications via said communication channel, or placing the target modem in receive only mode, as recited in claims 1, 14, 19, 27 and 36.

Art Unit: 2634

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **David B. Lugo** whose telephone number is **(703) 305-0954**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Stephen Chin**, can be reached at **(703) 305-4714**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

P.O. Box 1450

Alexandria, VA 22313-1450

or faxed to:


(703) 872-9306

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

dl

3/19/04


YOUNG T. TSE
PRIMARY EXAMINER